

REMARKS

Claims 11 to 13 and 15 were rejected under 35 U.S.C. §102(e) as being anticipated by Usui et al. (US 2004/0118382). Claims 16 to 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Usui et al. in view of Takahashi et al. (EP 0507191 A1). Claim 23 was rejected under 35 U.S.C. §103(a) as being unpatentable over Usui et al. in view of Takahashi et al. and Gottemoller et al. (US 2004/0200457).

Reconsideration of the application based on the following is respectfully requested

Rejections under 35 U.S.C. §102(e)

Claims 11 to 13 and 15 were rejected under 35 U.S.C. §102(e) as being anticipated by Usui et al. (US 2004/0118382).

Usui et al. shows a fuel rail assembly and a forming method. Three embodiments are illustrated one of which being a high pressure type. As stated in the abstract:

the assembly comprises an elongated conduit having a longitudinal fuel passage therein, a fuel inlet pipe fixed to an end or a side of the conduit, and a plurality of branch pipes. The rear end of each branch pipe is provide[d] with a connecting member for receiving a tip of a fuel injector.

Claim 11 recites “an internal combustion engine that includes an injection system configured as a high-pressure accumulator system, the internal combustion engine comprising:

at least one high-pressure pump;
a tubular high-pressure accumulator having a plurality of connection fittings;
a high-pressure supply line connecting the at least one high-pressure pump to the tubular high-pressure accumulator; and

a plurality of high-pressure connection lines each connected to one of the connection fittings and configured to provide a valve-controlled flow connection to a respective one of a plurality of injection valves of a cylinder row of the internal combustion engine,

wherein each of the plurality of connection fittings is disposed laterally offset relative to the corresponding injection valve, and wherein an absolute magnitude of the offset is the same for each of the injection valves.”

Usui et al. does not disclose “wherein an absolute magnitude of the offset is the same for

each of the injection valves.” As clear from Figure 6, each line, 44a to 44d, is shaped differently. Figure 6 is a “sectional view” of Figure 5. There is absolutely no teaching or disclosure that the offset is the same for each injection valve. In fact, due to the different line shapes in Figure 5 and Figure 6, the offsets are different. Furthermore, Figure 4, as cited by in the Office Action, also shows similar features to Figure 6 and not the same offset.

The Office Action asserts “Usui teaches that each branch pipe is inserted into the conduit at the same level or deeper level relative to the level of the tip of the inner collar which makes it necessary to bend them sideways the same way.” This does not teach “wherein an absolute magnitude of the offset is the same for each of the injection valves.” The depth of the branch pipe referenced in the Office Action is irrelevant to the lateral offset. Having the same depth level does not make it necessary for the injection valves to be bent the same way. Usui teaches away from the offset claimed because Usui clearly only speaks to the branch depth in the collar and makes no mention to any lateral offset.

Withdrawal of the rejections under 35 U.S.C. §102(e) thus is respectfully requested.

Rejections under 35 U.S.C. §103(a)

Claims 16 to 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Usui et al. in view of Takahashi et al. (EP 0507191 A1).

In light of the discussion above, withdrawal of the rejection of the dependent claims is respectfully requested.

Furthermore, claim, 16 recites “wherein the at least one high-pressure pump is disposed close to the cylinder head in a housing, and wherein the at least one high-pressure pump is actuated by an injection pump cam disposed on a gas-exchange camshaft.”

It would not have been obvious to one skilled in the art to combine Usui et al. with Takahashi et al. Furthermore there is no motivation to combine Usui et al. and Takahashi et al. The goal of Usui is not to provide the most compact driven high pressure pump but rather “to provide a fuel rail which can be utilized over a wide range of pressure applied to the fuel.” (Page 1, Paragraph [0007]).

Claim 23 was rejected under 35 U.S.C. §103(a) as being unpatentable over Usui et al. in

view of Takahashi et al. and Gottemoller et al (US 2004/0200457).

In light of the discussion above, withdrawal of the rejection of dependent claim 23 is respectfully requested.

Furthermore, claim 23 recites “comprising a fuel delivery pump and a fuel filter having a support frame disposed between a fuel delivery pump and the at least one high-pressure pump, and wherein the control block is integrated into the support frame.”

It would not have been obvious to one skilled in the art to combine Usui et al., Takahashi et al. and Gottemoller et al. Furthermore there is no motivation to combine Usui et al., Takahashi and Gottemoller et al.

CONCLUSION

The present application is respectfully submitted as being in condition for allowance and applicants respectfully request such action.

Respectfully submitted,

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